

SCIENCE

And Technology Program



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Many native fish species are declining throughout the Western United States, due in part to the construction of dams and the consequent upstream and downstream alteration of natural flow and temperature regimes. Fish may be impacted in many ways by these activities, including blockage of migration routes, loss of spawning habitat, creation of predator pools, and entrainment into irrigation canals and through turbines. More than 40 fish species from the western United States are currently listed under the Endangered Species Act, and Reclamation activities continue to impact these and other native fishes. In this study, we try to determine presence/absence, abundance, distribution, habitat use, and behavior of native fish that may be negatively impacted by Reclamation activities.

Specific objectives were:

1. To survey the fish community in the Yakima River below Roza, Sunnyside, and Prosser Dams to determine distribution and abundance. To analyze the trophic structure below Prosser Dam.
2. To assess certain water quality features in five lakes in the upper Yakima basin that may contain bull trout.
3. To begin a telemetry study of steelhead in the Upper Yakima basin.
4. Continue monitoring the fish community at Reclamation's Rio Grande bank stabilization sites and low-flow conveyance channels.
5. Finalize reports of the splittail and razorback sucker movement studies.

1. The third year of the 3-year Yakima fish community study was completed. Surveys were conducted in November, March, and July. An annual report was completed and circulated summarizing the year's data. The last fish stomach samples were collected and have been analyzed. A final report summarizing the 3-year data will be completed in FY 2000.
2. Three limnological surveys of the five lakes were completed.
3. Steelhead telemetry was postponed for 1 year.
4. The annual fish community survey of the Rio Grande was conducted.
5. The razorback sucker movement study manuscript was submitted to a peer-review journal for publication. The splittail manuscript is near completion.

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Bowen, M. B., S.D. Hiebert, C.A. Karp, and C. Liston. 1999. Upper Columbia Area Fishery Studies, Annual Report, FY99.

Karp, C.A., and G. Mueller. 1999. Razorback Sucker Movement and Habitat Use in the San Juan River Inflow, Lake Powell, Utah, 1995-1997. Submitted to Great Basin Naturalist.